

instance, is directed to an absorbent paper product for drying and conditioning the skin of a user. The paper product includes a paper web that is applied with a lotion such that the add-on level of the lotion is between about 1% to about 15% by weight of the paper product. The lotion comprises water in an amount between about 10% to about 75% by weight of the lotion; an emollient component in an amount between about 1% to about 15% by weight of the lotion; a fatty alcohol component in an amount between about 5% to about 40% by weight of the lotion; an emulsifier component in an amount between about 1% to about 30% by weight of the lotion; and a skin conditioning component in an amount between about 5% to about 50% by weight of the lotion. The skin conditioning component also includes a humectant, such as glycerin, in an amount between about 1% to about 10% of the lotion.

In the Office Action, original claims 1-3, 6-7, 10-11, and 14-15 were rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,869,075 to Krzysik, et al. However, independent claims 18, 45, and 46 each require that the lotion composition be applied to a paper product at a certain add-on level and that the lotion composition contain certain concentrations of selected ingredients. As correctly noted by the Examiner, Krzysik, et al. does not expressly teach the exact ranges of the ingredients of the claimed lotion composition. Thus, for at least this reason, Applicants respectfully submit that the present claims are not anticipated by Krzysik, et al.

Nevertheless, in the Office Action, it was also stated that “at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to vary the amount of ingredients in a lotion composition.” Applicants respectfully

submit, however, that one of ordinary skill in the art would not have found it obvious to modify Krzysik, et al. in such a manner to achieve the limitations of the present claims.

Krzysik, et al. is generally directed to a soft tissue product that is applied, on the surface, with large numbers of individual deposits of a melted hydrophilic composition comprising a high molecular weight polyethylene glycol, a fatty alcohol, and lipophilic emollients or solvents including water. (Col 1, lines 41-46). The deposits are resolidified on the surface to form a uniform distribution of solid deposits on the tissue. (Col 1, lines 46-58). For example, the hydrophilic composition of Krzysik, et al. can include from about 30% to about 90% hydrophilic solvent, from about 10% to about 50% high molecular weight polyethylene glycol, and from about 5% to about 40% of a C₁₄ to C₃₀ fatty alcohol. (Col 1, lines 59-67). The composition can also include from about 0.01% to about 20% of lipophilic materials emulsified into the composition by surfactants. (Col 4, lines 13-24). One example of the solid formulation includes 15% propylene glycol, 1% stearakonium chloride, 50% polyethylene glycol, 10% cetyl alcohol, and 24% hydrogenated starch hydrolysate. (Col 5, lines 48-67).

Although Krzysik, et al. discloses several ingredients that can be used in the present lotion, it has been discovered that the particular selection and concentration ranges of the above-mentioned ingredients utilized in the lotion can provide a synergistic effect when applied to a paper product. (Appl. pg. 4). Moreover, it has also been discovered that, when the lotion is applied at low add-on levels (e.g., between about 1% to about 15% by weight of the paper product), the resulting paper product can remain absorbent while simultaneously imparting certain benefits to the skin, such as

inhibiting microbial growth, skin disease, and excessive skin dryness. (Appl. pg. 4).

Krzysik, et al. simply fails to teach this synergistic combination of the claimed components in the claimed concentration ranges when applied to a paper product at a particular add-on level.

As an example, the present claims require the use of a humectant (claims 45 and 46) or glycerin (claim 18) in an amount of between about 1% to about 10% by weight of the lotion. Because humectants have an affinity for water, they can further enhance the retention of moisture on a person's skin and inhibit transepidermal water loss. (Appl. pg. 10). Although Krzysik, et al. teaches the use of humectants, such as glycerin or hydrogenated starch hydrolysate, it simply fails to recognize the synergistic benefits achieved by utilizing the humectant in an amount of between about 1% to about 10% by weight of the lotion. For instance, the Examples set forth in Krzysik, et al. use either glycerin or hydrogenated starch hydrolysate in amounts ranging from 15% to 38.9% by weight of the respective composition. (Cols 4-8, Examples 1-15). On the other hand, the present claims require that the humectant be utilized in an amount from about 1% to about 10% by weight of the lotion. Such an amount can provide the desired moisturization of the skin without adversely affecting other properties of the lotion.

In addition, although Krzysik, et al. mentions that water can be used as the hydrophilic solvent, none of the 15 examples provided therein utilize water as the solvent. The distinctions discussed above are merely representative of the underlying premise that Krzysik, et al. fails to teach the synergistic combination of the claimed ingredients in the claimed concentration range when applied to a paper product at the

required add-on level. Thus, Applicants respectfully submit that one of ordinary skill in the art would simply not have been motivated to modify Krzysik, et al. in a manner to achieve the limitations of the present claims.

In the Office Action, Krzysik, et al. was also combined with various additional references to render obvious original claims 16-44, including independent claim 18. For example, U.S. Patent No. 5,948,416 to Wagner, et al. was cited as teaching a humectant in an amount from about 0.1% to about 10%. Wagner, et al. is directed to a leave-on skin care composition in the form of oil-in-water emulsions, liquid crystals, and crystalline gel products that contain 0.001-20% active agent, 1-20% hydrophobic structuring agent, and 0.05%-10% hydrophilic surfactant. As correctly noted by the Examiner, Wagner, et al. also mentions that a humectant may be optionally utilized in an amount of 0.1% to 20% by weight of the composition.

However, Applicants initially note that Wagner, et al. is directed to leave-on skin care compositions that are not applied to paper products. To the contrary, Krzysik, et al. describes a composition that is particularly designed to applied to a paper-based product (i.e., tissue product). In fact, the composition of Krzysik, et al. is resolidified on the surface of the tissue product to inhibit migration of the components into the interior of the product. Skin care compositions, such as described in Wagner, et al. are clearly not faced with the difficulties of lotion migration and one of ordinary skill in the art would thus not have been motivated to combine such references in the manner suggested in the Office Action.

Nevertheless, even if the humectant was selected from Wagner, et al. and

utilized in the composition of Krzysik, et al., it is still submitted that the present claims would not have been obvious to one of ordinary skill in the art. Specifically, as noted above, the present claims are directed to a synergistic combination of ingredients, in certain concentration ranges, and applied to a paper product at a certain add-on level. Even if the composition taught in Krzysik, et al. was modified with a humectant within the claimed range, one of ordinary skill in the art, when viewing the references in their entirety, would not have found it obvious to utilize the combination of all of the claimed ingredients in the claimed concentration ranges at the claimed add-on level.

Besides Wagner, et al., various other references were also combined with Krzysik, et al. to achieve the limitations of the present claims. For instance, U.S. Patent No. 5,871,763 to Luu, et al. was cited as teaching the use of certain emollients. U.S. Patent No. 5,648,083 to Bliezner, et al. was cited as teaching the use of dimethicone as a skin conditioning agent. U.S. Patent No. 5,624,676 to Mackey, et al. was cited as teaching the use of a steareth compound as an emulsifier. Finally, U.S. Patent No. 5,716,692 to Warner, et al. was cited as teaching different types of paper and methods of applying lotions to paper. Nevertheless, even assuming that these references teach such limitations, they fail to cure the defects discussed above. Accordingly, for at least this reasons, Applicants respectfully submit that the present claims patentably define over the above-cited references, taken singularly or in any proper combination.

In addition, as noted above, the specification has been amended to include a description of some fibers that may be used in the present invention. This description is recited identically in U.S. Patent No. 5,399,412 to Sudall, et al. at Column 3, lines 40-

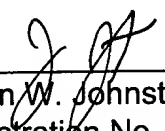
49. Moreover, U.S. Patent No. 5,399,412 to Sudall, et al. was incorporated into the present application in its entirety by reference thereto for all purposes. (See page 15, lines 8-12). Thus, it is submitted that this amendment does not constitute new matter.

As such, for at least the reasons set forth above, Applicants respectfully submit that the present claims patentably define over all of the prior art of record. It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Joynes is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this response.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully requested,

DORITY & MANNING, P.A.



Jason W. Johnston
Registration No. 45,675

DORITY & MANNING, P.A.
P. O. Box 1449
Greenville, SC 29602-1449
Phone: (864) 271-1592
Facsimile: (864) 233-7342

Date: 3/29/02

APPENDIX A

Marked up version of the paragraph beginning on page 4, lines 17 and ending on page 5, line 1:

Paper products made in accordance with the present invention can include various types of products, such as towels, wipes, napkins, facial and bath tissue, and the like. The paper product can generally be produced from paper webs having one or multiple layers. Moreover, depending on the desired characteristics, the paper product can contain one or multiple plies where each ply can contain one or more layers. The basis weight of the paper products can vary dependent on the particular application. In some embodiments, for example, the paper product can have a basis weight from about 1 to about 50 pounds per 2,880 square feet (i.e., ream), and in some embodiments, between about 5 to about 45 pounds per square ream. For instance, paper towels can sometimes be formed to have a basis weight of from about 10 to about 45 pounds per ream, and in some embodiments, between about 20 to about 30 pounds per ream. Suitable cellulosic fibers for use in connection with this invention include secondary (recycled) papermaking fibers and virgin papermaking fibers in all proportions. Such fibers include, without limitation, hardwood and softwood fibers as well as nonwoody fibers. Noncellulosic synthetic fibers can also be included as a portion of the furnish. It has been found that a high quality product having a unique balance of properties can be made using predominantly secondary fibers or all secondary fibers.

APPENDIX B

2. (Amended) A paper product as defined in claim [1] 45, wherein said water comprises between about 40% to about 70% by weight of said lotion.
3. (Amended) A paper product as defined in claim [1] 45, wherein said emollient component comprises between about 1% to about 10% by weight of said lotion.
4. (Amended) A paper product as defined in claim [1] 45, wherein said emollient component includes a linear primary alkyl ester of benzoic acid.
6. (Amended) A paper product as defined in claim [1] 45, wherein said fatty alcohol component comprises between about 10% to about 30% by weight of said lotion.
7. (Amended) A paper product as defined in claim [1] 45, wherein said fatty alcohol component includes a fatty alcohol selected from the group consisting of cetyl alcohol, stearyl alcohol, cetearyl alcohol, arachidyl alcohol, behenyl alcohol, and combinations thereof.
8. (Amended) A paper product as defined in claim [1] 45, wherein said emulsifier component comprises between about 5% to about 20% by weight of said lotion.
9. (Amended) A paper product as defined in claim [1] 45, wherein said emulsifier component includes a polyoxyethylene stearyl ether.
10. (Amended) A paper product as defined in claim [1] 45, wherein said skin conditioning component comprises between about 10% to about 40% by weight of said lotion.
12. (Amended) A paper product as defined in claim [1] 45, wherein said

humectant includes glycerin.

13. (Amended) A paper product as defined in claim [1] 45, wherein said skin conditioning component includes a skin conditioning agent selected from the group consisting of dimethicone, glyceryl stearate, caprylic/capric stearate triglyceride, stearamidopropyl PG-dimonium chloride phosphate and cetyl alcohol, and combinations thereof.

14. (Amended) A paper product as defined in claim [1] 45, wherein said add-on level of said lotion is between about 1% to about 10% by weight of said paper product.

15. (Amended) A paper product as defined in claim [1] 45, wherein said lotion further comprises an antimicrobial agent, a preservative, or combinations thereof.

16. (Amended) A paper product as defined in claim [1] 45, wherein said paper product is a towel having a basis weight between about 1 to about 50 pounds per ream.

17. (Amended) A paper product as defined in claim [1] 45, wherein said paper product is a towel having a basis weight between about 15 to about 45 pounds per ream.

18. (Amended) An absorbent paper towel for drying and conditioning the skin of a user, said towel having a basis weight from about 15 to about 45 pounds per ream, said towel comprising:

a paper web;

a lotion applied to said paper web such that the add-on level of said lotion is between about 1% to about 10% by weight of said paper towel, said lotion comprising the following components:

- i) water in an amount between about 10% to about 75% by weight of said lotion;
- ii) an emollient component in an amount between about 1% to about 15% by weight of said lotion, said emollient component including C₁₂-C₁₅ alkyl benzoate;
- iii) a fatty alcohol component in an amount between about 5% to about 40% by weight of said lotion, wherein said fatty alcohol component includes a fatty alcohol selected from the group consisting of cetyl alcohol, stearyl alcohol, cetearyl alcohol, arachidyl alcohol, behenyl alcohol, and combinations thereof; [and]
- iv) an emulsifier component in an amount between about 1% to about 30% by weight of said lotion, said emulsifier component including at least one emulsifier; and
- v) a skin conditioning component [comprising] in an amount between about 5% to about 50% by weight of said lotion, said skin conditioning component [including a humectant, said humectant including] glycerin in an amount of between about 1% to about 10% of said lotion.

28. (Amended) A method as defined in claim [27] 46, wherein said lotion is printed onto said paper web.

29. (Amended) A method as defined in claim [27] 46, wherein said lotion is sprayed onto said paper web.

30. (Amended) A method as defined in claim [27] 46, wherein said water comprises between about 40% to about 70% by weight of said lotion.

31. (Amended) A method as defined in claim [27] 46, wherein said emollient component comprises between about 1% to about 10% by weight of said lotion.

32. (Amended) A method as defined in claim [27] 46, wherein said emollient

component includes a linear primary alkyl ester of benzoic acid.

34. (Amended) A method as defined in claim [27] 46, wherein said fatty alcohol component comprises between about 10% to about 30% by weight of said lotion.

35. (Amended) A method as defined in claim [27] 46, wherein said fatty alcohol component includes a fatty alcohol selected from the group consisting of cetyl alcohol, stearyl alcohol, cetearyl alcohol, arachidyl alcohol, behenyl alcohol, and combinations thereof.

36. (Amended) A method as defined in claim [27] 46, wherein said emulsifier component comprises between about 5% to about 20% by weight of said lotion.

37. (Amended) A method as defined in claim [27] 46, wherein said emulsifier component includes a polyoxyethylene stearyl ether.

38. (Amended) A method as defined in claim [27] 46, wherein said skin conditioning component comprises between about 10% to about 40% by weight of said lotion.

40. (Amended) A method as defined in claim [39] 46, wherein said humectant includes glycerin.

41. (Amended) A method as defined in claim [27] 46, wherein said skin conditioning component includes a skin conditioning agent selected from the group consisting of dimethicone, glyceryl stearate, caprylic/capric stearate triglyceride, stearamidopropyl PG-dimonium chloride phosphate and cetyl alcohol, and combinations thereof.

42. (Amended) A method as defined in claim [27] 46, wherein said add-on level

of said lotion is between about 1% to about 10% by weight of said paper product.

43. (Amended) A method as defined in claim [27] 46, wherein said lotion further comprises an antimicrobial agent, a preservative, or combinations thereof.

44. (Amended) A method as defined in claim [27] 46, wherein said paper product is a towel having a basis weight between about 15 to about 45 pounds per ream.